In the claims:

Claims 1-2. (Canceled)

- 3. (Currently Amended) The method of claim 2 24 wherein the substrate is a silicon wafer.
- 4. (Original) The method of claim 3 wherein growing the SWNTs on a silicon wafer comprises the steps of:

depositing on said wafer a metallic catalytic material;

placing said silicon wafer in a CVD furnace; and

exposing said silicon wafers to a gaseous atmosphere comprising a carbon containing gas.

- 5. (Original) The method of claim 4 wherein the metallic catalytic material is selected from the group consisting of metals, metal oxides, metallic salts, and metallic particles.
- 6. (Original) The method of claim 4 wherein the metallic catalytic material is in solution.
- 7. (Original) The method of claim 6 wherein the metallic catalytic material is selected from the group consisting of ferric salts, nickel salts, cobalt salts, platinum salts, molybdenum salts, and ruthenium salts.
- 8. (Original) The method of claim 7 wherein the metallic catalytic material is ferric nitrate.
- 9. (Original) The method of claim 6 wherein the solution comprises an alcohol.
- 10. (Original) The method of claim 9 wherein the alcohol is selected from the group consisting of methanol, ethanol, and isopropanol.
- 11. (Original) The method of claim 10 wherein the alcohol is isopropanol.
- 12. (Original) The method of claim 4 wherein the carbon containing gas is ethylene.
- 13. (Original) The method of claim 9 wherein the carbon containing gas is ethylene, the metallic catalytic material is ferric nitrate, and the alcohol is isopropanol.
- 14. (Canceled)
- 15. (Original) The method of claim 3 wherein growing the SWNTs on a silicon wafer comprises the steps of:

treating said silicon wafer with metallic colloid particles;
placing said silicon wafer in a CVD furnace; and
exposing said silicon wafers to a gaseous atmosphere comprising a carbon
containing gas.

- 16. (Original) The method of claim 15 wherein the metallic colloid is selected from the group consisting of iron colloids, nickel colloids, cobalt colloids, platinum colloids, molybdenum colloids, and ruthenium colloids.
- 17. (Original) The method of claim 16 wherein the metallic colloid is an iron colloid.
- 18. (Original) The method of claim 15 wherein the carbon containing gas is ethylene.
- 19. (Original) The method of claim 15 wherein the metallic colloids have diameters of about 3-15 nm.
- 20. (Currently Amended) The method of claim 1 24 wherein the SWNT has a diameter from about 2 nm to about 13 nm.
- 21. (Currently Amended) The method of claim 1 24 wherein the SWNT has a diameter from about 2 nm to about 9 nm.
- 22. (Currently Amended) The method of claim 1 24 wherein the SWNT has a diameter from about 3 nm to about 5 nm.
- 23. (Currently Amended) The method of claim $\frac{1}{24}$ wherein said tip bears an adhesive.
- 24. (Currently Amended) A method of fabricating a SWNT probe for use in atomic force microscopy, comprising:

growing SWNTs on a substrate using chemical vapor deposition; imaging said substrate using an atomic force microscope comprising a tip; attaching one of said SWNTs to said tip thereby producing a tip bearing a SWNT;

heating said tip bearing a SWNT to from 900 to 1000 °C; thereby fabricating the SWNT probe.

Claims 25-36. (Canceled)

and